

Appl. No. 10/677,443
Amdt. dated July 2, 2007
Reply to Office action of April 2, 2007

Amendments to the Specification:

Please replace the paragraph beginning at page 3, line 4, with the following rewritten paragraph:

In the circulation type, the tubes reside in a circuit with a steam drum that is above the tubes. The drum contains water which flows from the drum, through a downcomer, and then into the tubes where some of it is converted into steam, but the steam exists as bubbles within the water, and is returned through a riser into the steam drum. Here the steam, which is saturated, separates from the liquid water and passes on to the superheater. It is replaced by feedwater which is supplied to the drum. The tubes of a circulation evaporator remain wet all the time – that is to say, liquid water exists against their interior surfaces throughout. This promotes good heat transfer. It also maintains the tubes at relatively moderate temperatures, thus eliminating the need for high temperature[[s]] alloys in the tubing.

Please replace the paragraph beginning at page 6, line 18, with the following rewritten paragraph:

Each tube 30 contains a helical tape 40 (Figs. 3-5) which extends from its inlet and, that is its end which is connected to the supply header 26, through the regions in which the mist exists. The width of each tape [[30]] 40 is slightly less than the inside

diameter of the tube 30 through which it extends, so that the tape 40 can be inserted into or withdrawn from the tube 30 without interference from the tube 30 itself. Preferably, the width of each tape 40 should be about 1/16 inches smaller than the inside diameter of its tube 30, at least for a tube having a 2 inch inside diameter. The tape 40 is twisted multiple times between its ends, so that its edges form helices that lie along the inside surface of the tube 30. Indeed, a full 360° twist of the tape 40 should occur within a distance amounting to a length to diameter of 5 to 25. For example, for a tube 30 having a 2 inch inside diameter and a length to diameter ratio of 5 for the twist in its tape 40, a full 360° twist of the tape 40 will occur in 10 inches of the tube 40. That end of the tape 40 that resides at the inlet of the tube 30 is fitted with an anchor bar 42 that extends transversely across like inlet end of the tube 32. The bar 42 is welded to the end of the tube 30 and to the tape 40, thus anchoring the tape 40 with its tube 30. The tapes 40 are formed from a metal that can withstand the temperatures associated with slightly superheated steam and are further compatible with the metal of the tube 30 in the sense electrolytic reactions are minimized. Stainless steel is suitable when the tubes 30 are carbon steel.